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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/673,951 | 10/24/2000 | Eugenie Charriere | 004900-188 | 8720 |

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EXAMINER

SERGEANT, RABON A

| ART UNIT | PAPER NUMBER |
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1711

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,951

Applicant(s)

CHARRIERE ET AL.

Examiner

Rabon Sergeant

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-42 and 44-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-42 and 44-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on January 28, 2005 has been entered.

2. Claims 24-39, 41, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants have claimed that the allophanates are prepared from alkyl alcohols containing a linear C₄-C₈ chain; however, it is unclear which allophanates are being referred to. Within claim 24, applicants refer to two groups of allophanates; those claimed as being added and those claimed as being tricondensate allophanates. It is unclear if one type or both types of allophanates are governed by the alcohol limitation.

3. Claims 24-42 and 44-58 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Despite applicants' response, the term, "true trimer", has not been defined within the specification, and no evidence has been presented that one of ordinary skill would know that the term represents a product of the trimerization of only three monomers with no further propagation. The examiner has reviewed applicants' cited passages within U.S. 6,492,456 and U.S. 6,653,432, and the position is taken that the argued passages

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support the examiner's position that the term lacks an art recognized definition. This position is logical in view of the fact that the cited definitions are not consistent with each other; the definition of U.S. 6,653,432 requires the presence of a uretdione ring and the definition of U.S. 6,492,456 sets forth provisos not encompassed by U.S. 6,653,432.

2. Claims 24-42 and 44-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, the examiner has considered applicants' remarks concerning the definition of a "derived isocyanate function"; however, the position is maintained that the definition is repugnant to the art recognized definition. One of ordinary skill would not envisage the recited groups as falling within the definition of an isocyanate. Furthermore, applicants' language and its interpretation calls into question exactly what is encompassed by any of applicants' terms which include the term, isocyanate or polyisocyanate. By the set forth reasoning, it is unclear if any of applicants' tricondensate polyfunctional isocyanate compositions are required to contain any isocyanate groups? If applicants intend the language to mean other than isocyanate groups, then it is unclear why this language has not been used. The language introduces an unnecessary degree of ambiguity. Applicants' responses of January 16, 2004 and January 28, 2005 have not addressed the examiner's aforementioned concerns. Applicants have questioned why the rejection has been applied to all claims. In response, applicants' position regarding the meaning of "derived isocyanate function" calls into question the meaning of any instantly claimed isocyanate composition.

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Secondly, despite applicants' response, the position is maintained that without specifying a weight or quantity relationship between the two steps of claim 40 or amounts of products within each of the two steps of claim 40, the claimed weight percent of claim 45 is essentially meaningless. There is no requirement that all of the product from step a) be used. Applicants' response in no way clarifies the relationship between the product of step b) and the product of step a) or explains how the 25 weight percent language contributes any meaningful limitation to the claim.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 46-50, 53, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 649866.

The reference discloses polyisocyanates containing isocyanurate groups and allophanate groups, wherein the allophanate group content reads on the contents claimed by applicants and the preferred alcohols used to produce the allophanates include butanol and pentanol. See abstract; page 3, line 55; and examples 1-8, 11, and 12.

6. Applicants' arguments pertaining to unexpected results are inadequate and improper to rebut the anticipation rejection.

7. Claims 24-42, 44, 45, 51, and 52 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Potter et al. ('018) or Jacobs et al. ('482) or EP 649866.

The references disclose the incorporation of allophanate groups into a trimerized polyisocyanate composition, so as to reduce the viscosity of the composition. See abstracts and columns 1 and 2 within Potter et al. and Jacobs et al. See abstract; page 3, line 55; and examples 1-8, 11, and 12, within EP 649866.

8. Though the references are silent regarding the simple admixture of the allophanate component to the isocyanurate component, the position is taken that it is by no means certain that the claims as drafted exclude the process of adding the allophanate by forming it *in situ*. The claims simply require that the allophanate and trimerization products be combined. However, even if it is determined that the claims require the admixture of previously formed components,

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the position is taken that one would have expected that a decrease in viscosity would result from the simple admixture of the components, since it has long been known that the viscosity of a component can be reduced by adding a quantity of less viscous material.

9. Applicants have argued that Potter et al. fail to anticipate the claims in view of patentees' use of a ten carbon atom alcohol. In response, applicants' claims as drafted merely specify that the alcohol is alkyl and that it contains a linear four to eight carbon chain. An alcohol that satisfies this description is disclosed by Potter et al. at column 5, lines 59 and 60; note 4-cyclohexyl-1-butanol.

10. Applicants have argued that while Jacobs et al. disclose the use of butanol, no consideration is given to the viscosities of the various compositions. Applicants further argue that examples 1 and 2 of Jacobs et al. are solid. In response, with the exception of claim 40 and its dependent claims, the issue of viscosity is immaterial, since the claims are not limited with respect to viscosity. Furthermore, though the cited examples are disclosed as being solid, patentees disclose at column 7, lines 51+ that the presence of the allophanates yield lower solution viscosities; therefore, the reference provides teaching concerning the control of viscosity properties.

11. With respect to EP 649866, applicants' attention is directed to paragraph 6.

12. Lastly, in considering the obviousness issues, applicants argued test data has been considered. However, the test data is of no probative value. The test data is not in the form of a declaration and no meaningful statement of its relevance to the instant claims or its scope relative to the instant claims has been provided. The position is ultimately taken that the test data is deficient with respect to content and explanation to such an extent that no meaningful evidence

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demonstrating that the use of the argued alcohols yields an unexpected result can be attributed to the data.

13. Claims 24-26, 28-39, 41, and 46-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woynar et al. ('359).

Patentees disclose polyisocyanate compositions comprising biurets, wherein it is particularly preferred to produce the biuret from hexamethylene diisocyanate. See abstract and column 2, lines 41 and 42. Patentees further teach at column 4, lines 64+ that allophanate groups may be incorporated within the composition, so as to modify the flexibility, bonding, hydrolysis resistance, hardness, and/or solvent resistance of the biuret polyisocyanates and the products produced from them. Therefore, the position is taken that it would have been obvious to incorporate a quantity of allophanate groups into a hexamethylene diisocyanate biuret composition, so as to obtain a biuret containing composition having the aforementioned improvements.

14. Applicants have argued that there is no teaching or suggestion in Woynar et al. to use C₄-C₈ alcohols to prepare a monoallophanate in order to lower the viscosity of polyisocyanate compositions. In response, applicants' argument is not commensurate in scope with the claims; there are no limitations governing viscosity within the rejected claims. Furthermore, applicants' claimed alcohol does not preclude the disclosed polyvalent alcohols.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent
May 26, 2005


RABON SERGENT
PRIMARY EXAMINER